

08321-168 US1.TXT SEQUENCE LISTING

```
<110> waldman, Scott A.
      Pitari, Giovanni Mario
      Park, Jason
      Schulz, Stephanie
      Wolfe, Henry R.
Lubbe, Wilhelm
<120> The Use Of GCC Ligands
<130> 08321-0168 US1
<140> US 10/775,481
<141> 2004-02-10
<150> US 60/446,730 <151> 2003-02-10
<160> 56
<170> FastSEQ for Windows Version 4.0
<210> 1
<211> 57
<212> DNA
<213> Artificial Sequence
<220>
<223> ST Ia
<221> CDS
<222> (1)...(57)
<400> 1
aac aac aca ttt tac tgc tgt gaa ctt tgt tgt aat cct gcc tgt gct
                                                                          48
Asn Asn Thr Phe Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Ala
1 1 15
                                                                          57
 gga tgt tat
Gly Cys Tyr
 <210> 2
 <211> 19
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> ST Ia
 Asn Asn Thr Phe Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Ala
1 5 15
 Gly Cys Tyr
```

<210> 3 <211> 18

```
<212> PRT
<213> Artificial Sequence
<220>
<223> ST I*
Asn Thr Phe Tyr Cys Cys Glu Leu Cys Cys Tyr Pro Ala Cys Ala Gly
1 10 15
Cys Asn
<210> 4
<211> 57
<212> DNA
<213> Artificial Sequence
<220>
<223> ST Ib
<221> CDS
<222> (1)...(57)
<400> 4
aat agt agc aat tac tgc tgt gaa ttg tgt tgt aat cct gct tgt aac Asn Ser Ser Asn Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Asn 1 5 15
                                                                                48
                                                                                57
ggg tgc tat
Gly Cys Tyr
 <210> 5
 <211> 19
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> ST Ib
 Asn Ser Ser Asn Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Asn 10 15
 Gly Cys Tyr
 <210> 6
 <211> 15
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> guanylin
 <400> 6
 <400> b
Pro Asn Thr Cys Glu Ile Cys Ala Tyr Ala Ala Cys Thr Gly Cys
10
15
                                            10
```

```
<211> 18
<212> PRT
<213> Artificial Sequence
<220>
<223> fragment
<400> 7
Asn Asn Thr Phe Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Ala
10 15
Gly Cys
<210> 8
<211> 17
<212> PRT
<213> Artificial Sequence
<220>
<223> fragment
Asn Thr Phe Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Ala Gly
1 5 10 15
 Cys
 <210> 9
 <211> 16
 <212> PRT
 <213> Artificial Sequence
 <220>
<223> fragment
 Thr Phe Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Ala Gly Cys 1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15
 <210> 10
<211> 15
<212> PRT
 <213> Artificial Sequence
 <220>
 <223> fragment
 Phe Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Ala Gly Cys
1 10 15
  <210> 11
  <211> 14
  <212> PRT
  <213> Artificial Sequence
  <220>
  <223> fragment
```

```
08321-168 US1.TXT
```

```
<400> 11
Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Ala Gly Cys
1 5 10
<210> 12
<211> 13
<212> PRT
<213> Artificial Sequence
<220>
<223> fragment
<400> 12
Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Ala Gly Cys
1 10
<210> 13
<211> 18
<212> PRT
<213> Artificial Sequence
<220>
<223> fragment
<400> 13
Asn Thr Phe Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Ala Gly 1 5 10 15
Cys Tyr
 <210> 14
 <211> 17
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> fragment
 Thr Phe Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Ala Gly Cys
1 10 15
 Tyr
 <210> 15
 <211> 16
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> fragment
  <400> 15
 Phe Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Ala Gly Cys Tyr
1 5 10 15
  <210> 16
<211> 15
```

```
<212> PRT
<213> Artificial Sequence
<220>
<223> fragment
<400> 16
Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Ala Gly Cys Tyr
1 5 10 15
<210> 17
<211> 14
<212> PRT
<213> Artificial Sequence
<220>
<223> fragment
<400> 17
Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Ala Gly Cys Tyr
1 5 10
<210> 18
<211> 17
<212> PRT
<213> Artificial Sequence
<220>
<223> fragment
<400> 18
Asn Thr Phe Tyr Cys Cys Gly Leu Cys Cys Tyr Pro Ala Cys Ala Gly
1 5 10 15
Cys
 <210> 19
 <211> 16
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> fragment
 Thr Phe Tyr Cys Cys Glu Leu Cys Cys Tyr Pro Ala Cys Ala Gly Cys 1 5 10 15
 <210> 20
 <211> 15
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> fragment
 <400> 20
 Phe Tyr Cys Cys Glu Leu Cys Cys Tyr Pro Ala Cys Ala Gly Cys
                                         10
                                       Page 5
```

```
<210> 21
<211> 14
<212> PRT
<213> Artificial Sequence
<220>
<223> fragment
<400> 21
Tyr Cys Cys Glu Leu Cys Cys Tyr Pro Ala Cys Ala Gly Cys
<210> 22
<211> 13
<212> PRT
<213> Artificial Sequence
<220>
<223> fragment
<400> 22
Cys Cys Glu Leu Cys Cys Tyr Pro Ala Cys Ala Gly Cys
1 5 10
<210> 23
<211> 17
<212> PRT
<213> Artificial Sequence
<220>
<223> fragment
<400> 23
Thr Phe Tyr Cys Cys Glu Leu Cys Cys Tyr Pro Ala Cys Ala Gly Cys
1 10 15
Asn
<210> 24
<211> 16
<212> PRT
<213> Artificial Sequence
<220>
 <223> fragment
 <400> 24
 Phe Tyr Cys Cys Glu Leu Cys Cys Tyr Pro Ala Cys Ala Gly Cys Asn 1 5 10 15
 <210> 25
 <211> 15
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> fragment
                                       Page 6
```

```
<400> 25
Tyr Cys Cys Glu Leu Cys Cys Tyr Pro Ala Cys Ala Gly Cys Asn 10 15
<210> 26
<211> 14
<212> PRT
<213> Artificial Sequence
<220>
<223> fragment
<400> 26
Cys Cys Glu Leu Cys Cys Tyr Pro Ala Cys Ala Gly Cys Asn
1 5 10
<210> 27
<211> 18
<212> PRT
<213> Artificial Sequence
<220>
<223> fragment
<400> 27
Asn Ser Ser Asn Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Thr
1 5 15
Gly Cys
 <210> 28
 <211> 17
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> fragment
 <400> 28
 Ser Ser Asn Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Thr Gly
1 5 10 15
 Cys
 <210> 29
 <211> 16
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> fragment
 <400> 29
 Ser Asn Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Thr Gly Cys 1 5 10 15
```

```
<211> 15
<212> PRT
<213> Artificial Sequence
<220>
<223> fragment
<400> 30
<400> 30
Asn Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Thr Gly Cys
15
<210> 31
<211> 14
<212> PRT
<213> Artificial Sequence
<220>
<223> fragment
<400> 31
Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Thr Gly Cys
<210> 32
<211> 13
<212> PRT
<213> Artificial Sequence
 <220>
 <223> fragment
 Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Thr Gly Cys
1 10
 <210> 33
<211> 18
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> fragment
 Ser Ser Asn Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Thr Gly 1 5 10
 cys Tyr
 <210> 34
 <211> 17
  <212> PRT
  <213> Artificial Sequence
 <220>
  <223> fragment
  <400> 34
 Ser Asn Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Thr Gly Cys
```

and the the the the same of the

yr yr

```
<210> 35
<211> 16
<212> PRT
<213> Artificial Sequence
<220>
```

<223> fragment

<400> 35
Asn Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Thr Gly Cys Tyr
1 5 10 15

<210> 36 <211> 15 <212> PRT <213> Artificial Sequence <220> <223> fragment

<400> 36
Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Thr Gly Cys Tyr
1 5 10 15

<210> 37 <211> 14 <212> PRT <213> Artificial Sequence <220> <223> fragment

<400> 37 Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Thr Gly Cys Tyr 1 5 10

<210> 38 <211> 18 <212> PRT <213> Artificial Sequence <220>

<223> derivative

<400> 38 Asn Thr Phe Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Ala Gly $\frac{1}{1}$ $\frac{5}{1}$ Cys Tyr

<210> 39 <211> 18 <212> PRT <213> Artificial Sequence

```
<220>
<223> derivative
<400> 39
Asn Thr Phe Tyr Cys Cys Glu Leu Cys Cys Ala Pro Ala Cys Ala Gly
1 10 15
Cys Tyr
<210> 40
<211> 18
<212> PRT
<213> Artificial Sequence
<220>
<223> derivative
<400> 40
Asn Thr Phe Tyr Cys Cys Glu Leu Cys Cys Asn Ala Ala Cys Ala Gly
1 5 10
Cys Tyr
<210> 41
<211> 17
<212> PRT
<213> Artificial Sequence
<220>
<223> derivative
 <400> 41
Asn Thr Phe Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Ala Gly
1 5 10 15
 1
Cys
 <210> 42
 <211> 15
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> derivative
 <400> 42
 Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Ala Gly Cys Tyr
1 5 10 15
 <210> 43
 <211> 14
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> derivative
 <400> 43
```

```
08321-168 US1.TXT
Tyr Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Ala Gly Cys
1 5 10
<210> 44
<211> 14
<212> PRT
<213> Artificial Sequence
<220>
<223> derivative
<400> 44
Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Ala Gly Cys Tyr 1 	 5 	 10
<210> 45
<211> 13
<212> PRT
<213> Artificial Sequence
<220>
<223> derivative
 <400> 45
Cys Cys Glu Leu Cys Cys Asn Pro Ala Cys Ala Gly Cys
1 10 10
 <210> 46
 <211> 25
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> derivative
 <400> 46
 Gln Ala Cys Asp Pro Pro Ser Pro Pro Ala Glu Val Cys Cys Asp Val
1 5 10 15
 Cys Cys Asn Pro Ala Cys Ala Gly Cys
 <210> 47
 <211> 16
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> derivative
 <400> 47
 Ile Asp Cys Cys Ile Cys Cys Asn Pro Ala Cys Phe Gly Cys Leu Asn
  <210> 48
  <211> 18
  <212> PRT
  <213> Artificial Sequence
```

```
<220>
<223> derivative
<400> 48
Ser Ser Asp Trp Asp Cys Cys Asp Val Cys Cys Asn Pro Ala Cys Ala
10 15
Gly Cys
<210> 49
<211> 19
<212> PRT
<213> Artificial Sequence
<220>
<223> derivative
<400> 49
Asn Ser Ser Asn Tyr Cys Cys Glu Leu Cys Cys Tyr Pro Ala Cys Thr
1 5 15
Gly Cys Tyr
<210> 50
<211> 13
<212> PRT
 <213> Artificial Sequence
<220>
<223> derivative
 <400> 50
Cys Cys Asp Val Cys Cys Asn Pro Ala Cys Thr Gly Cys
1 5 10
 <210> 51
 <211> 14
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> derivative
 <400> 51
 Cys Cys Asp Val Cys Cys Tyr Pro Ala Cys Thr Gly Cys Tyr
 <210> 52
 <211> 14
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> derivative
 Cys Cys Asp Leu Cys Cys Asn Pro Ala Cys Ala Gly Cys Tyr
```

```
<210> 53
<211> 14
<212> PRT
<213> Artificial Sequence
<220>
<223> derivative
<400> 53
Cys Cys Gln Leu Cys Cys Asn Pro Ala Cys Thr Gly Cys Tyr 1
<210> 54
<211> 15
<212> PRT
<213> Homo sapiens
<400> 54
Pro Gly Thr Cys Glu Ile Cys Ala Tyr Ala Ala Cys Thr Gly Cys
1 10 15
<210> 55
<211> 106
<212> PRT
<213> Rattus norvegicus
<400> 55
Met Ser Gly Ser Gln Leu Trp Ala Ala Val Leu Leu Leu Val Leu
                                        10...
Gln Ser Ala Gln Gly Val Tyr Ile Lys Tyr His Gly Phe Gln Val Gln 20 25 30
Leu Glu Ser Val Lys Lys Leu Asn Glu Leu Glu Glu Lys Gln Met Ser 35 40 45_
Asp Pro Gln Gln Gln Lys Ser Gly Leu Leu Pro Asp Val Cys Tyr Asn 50 55 _ 60
Pro Ala Leu Pro Leu Asp Leu Gln Pro Val Cys Ala Ser Gln Glu Ala
65 70 75 80
Ala Ser Thr Phe Lys Ala Leu Arg Thr Ile Ala Thr Asp Glu Cys Glu
85_ 90 95
Leu Cys Ile Asn Val Ala Cys Thr Gly Cys
              100
```

<210> 56 <211> 112 <212> PRT <213> Homo sapiens

<400> 56 Met Gly Cys Arg Ala Ala Ser Gly Leu Leu Pro Gly Val Ala Val 15 Leu Leu Leu Leu Gln Ser Thr Gln Ser Val Tyr Ile Gln Tyr Gln
20 25 30 Gly Phe Arg Val Gln Leu Glu Ser Met Lys Lys Leu Ser Asp Leu Glu 35 40 45 Ala Gln Trp Ala Pro Ser Pro Arg Leu Gln Ala Gln Ser Leu Leu Pro 50_ 55 Ala Val Cys His His Pro Ala Leu Pro Gln Asp Leu Gln Pro Val Ala Ser Gln Glu Ala Ser Ser Ile Phe Lys Thr Leu Arg Thr Ile Ala 08321-168 US1.TXT

85

Asn Asp Asp Cys Glu Leu Cys Val Asn Val Ala Cys Thr Gly Cys Leu
100

100

100